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10/525,888

09/19/2005

Robert Lance Cook

2725-12503

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EXAMINER

KOEHLER, CHRISTOPHER M

ART UNIT

PAPER NUMBER

3726

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---|---|--|
| Office Action Summary | Application No. 10/525,888 | Applicant(s) COOK, ROBERT LANCE | |
| | Examiner Christopher M. Koehler | Art Unit 3726 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 4, 7-12, 16-25, 29, 32, 36-40, 42-44 and 46-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 13-15, 26-28, 30, 31, 33-35, 41 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 6, 13, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villatte (US Patent No. 6,145,547) in view of Riese (US Patent No. 4,419,802).

Claims 1, 13 and 26:

Villatte teaches a method of manufacturing an insulated wellbore casing (figure 1) within a borehole that traverses a subterranean formation and includes a first wellbore casing (2) coupled to and positioned within the wellbore, comprising: positioning a second wellbore casing (1) having a plurality of spaced apart axially distributed resilient sleeves (12) coupled to the exterior surface of the second wellbore casing within the first wellbore casing (figure 1); and the resilient sleeves engage the interior surface of the second pipe, wherein an annulus (5) is defined between the first and second wellbore casings by the radial thickness of the resilient sleeves.

Villatte does not explicitly teach radially expanding and plastically deforming the second wellbore casing until the resilient sleeves engage the interior surface of the second pipe, wherein an annulus is defined between the first and second wellbore casings by the radial thickness of the resilient sleeves after expansion.

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Riese teaches a method of forming a tube within a tube connection comprising a inner tube (1), an outer tube (3) and a resilient spacer (2), wherein after placing the resilient spacer about the inner tube and placing the tube/spacer subassembly within the outer tube the inner tube is expanded such that the inner tube engages the interior surface of the spacer and the exterior surface of the spacer contacts the interior surface of the outer tube, wherein an annulus is defined between the inner and outer tubes by the radial thickness of the spacer after expansion (figures 1 and 5; col. 3, lines 12-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have performed the radial expansion step taught by Riese in the method of Villatte in order to provide a more secure connection between the inner and outer tubes of Villatte by way of the pre-stressed condition imparted by the radial expansion which will hold the inner and outer tubes in position and maintain the insulating material in position.

Claims 5 and 30:

Villatte teaches that the first pipe further comprises: a plurality of thermal insulating sleeves (7, 8, 9) coupled to the exterior surface of the first pipe and interleaved among the resilient sleeves (12).

Claim 6:

Villatte teaches positioning the first pipe having the plurality of spaced apart resilient sleeves coupled to the exterior surface of the first pipe within the second pipe comprises: positioning the second pipe beneath a body of water; and positioning the

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first pipe having the plurality of spaced apart resilient sleeves coupled to the exterior surface of the first pipe within the second pipe (col. 1, lines 6-12).

3. Claims 2, 3, 27, 28, 31, 33, 34, 35 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Villatte in view of Riese and further in view of Ruggles et al. (US Patent No. 5,427,243).

Claims 2, 3, 27 and 28:

Villatte teaches applying an insulating material (7, 8, 9) into the annulus defined between the first and second pipes before radially expanding and plastically deforming the first pipe (figure 1) but does not explicitly teach that the insulating material is injected.

Ruggles teaches injecting an insulating material (51) into an annulus defined between the first and second pipes (figure 6) before radially expanding and plastically deforming the first pipe (figure 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the injected insulating sealant of Ruggles to the outer surface of the inner pipe of Villatte/Riese in order to provide an improved joint construction between the two pipes. It should be noted that as the injected insulating material is applied to the annulus between the inner and outer pipes that it will, upon expansion, form thermal insulating sleeves interleaved between the resilient sleeves in the same manner as it fills the gaps between the flutes of Ruggles.

Claims 31 and 33:

See rejections of claims 1-3.

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Claims 34, 35 and 45:

See rejections of claims 1-3 and 5.

4. Claims 14, 15 and 41 rejected under 35 U.S.C. 103(a) as being unpatentable over Villatte in view of Riese and further in view of Kaplowitz et al. (US Patent No. 2,850,796).

Claims 14 and 15:

Villatte/Riese teaches positioning the outer rigid pipe at a location at which the insulated pipeline will be used to convey fluidic materials through the interior of the inner rigid pipe (col. 1, lines 6-12); and manufacturing the insulated pipeline by radially expanding and plastically deforming the inner rigid pipe within the outer rigid pipe; and that the location at which the insulated pipeline will be used to convey fluidic materials through the interior of the inner rigid pipe is below a body of water (col. 1, lines 6-12).

Villatte/Riese does not explicitly teach radially expanding and plastically deforming the inner rigid pipe within the outer rigid pipe while the inner and outer rigid pipes are both positioned at the location at which the insulated pipeline will be used to convey fluidic materials through the interior of the inner rigid pipe and that the location at which the insulated pipeline will be used to convey fluidic materials through the interior of the inner rigid pipe is below a body of water.

Villatte/Riese, thus, teaches the structure above but does not explicitly teach that the expansion and joining can take place underwater. Kaplowitz teaches a method for expanding inner tubes within outer tubes wherein the expansion technique uses a mandrel and pressure system that can be use with equal facility through straight lines of

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pipe members or through lines having curves, bends, in close quarters, underwater, in hazardous conditions, and so forth (col. 3, line 74-col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the expansion method of Kaplowitz to the expansion teachings of Villatte/Riese in order to provide a method for joining expanded tubulars in situ, or in difficult to access areas such as underwater or in close quarters.

Claim 41:

See rejections of claims 13-15.

Response to Arguments

5. Applicant's arguments with respect to claims 1-3, 5, 6, 13-15, 26-28, 30, 31, 33-35, 41 and 45 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Koehler whose telephone number is (571)272-3560. The examiner can normally be reached on Mon.-Fri. 7:30A-4:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jermie E Cozart/
Primary Examiner, Art Unit 3726

/C. M. K./
Examiner, Art Unit 3726